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LARGO, FLORIDA EST. 1905

Community Development Department Carol Stricklin AICP, Community Development Director Leland Dicus, P.E., City Engineer Community Development Administration: (727) 586-7490 Engineering Services Division: (727) 587-6713 Engineering Services FAX: (727) 586-7413

December 1, 2014

Steven Kelly, Environmental Maanager Florida Department of Environmental Protection, Southwest District 13051 North Telecom Parkway Temple Terrace, FL 33637-0926

Re: Progress Report 17 for Consent Order OGC File No. 03-0666

and Progress Report 3 for Administrative Order No. AO-152-SW

Largo WWRF, Facility ID No. FL0026603, Pinellas County

Dear Mr. Kelly

The purpose of this letter is to transmit the attached reports to the Florida Department of Environmental Protection (FDEP) as to the City of Largo's progress in complying with the requirements of Consent Order 03-0666 as well as Administrative Order AO-152-SW. Please also find attached the City of Largo CMOM Program Update Report for December, 2014

Please contact me should you have any questions regarding the information provided. I can be reached by phone at (727) 587-6713 or at ldicus@largo.com.

Sincerely,

Leland E. Dicus, P.E.

City Engineer

Attachments: FDEP Consent Order Progress Report 17; FDEP Administrative Order Progress Report 3; and December 2014 CMOM Program Update Report

cc: Norton Craig, City of Largo

Irvin Kety, City of Largo Todd Tanberg, City of Largo Vivian Gleeves, City of Largo

Garry Jones-Glascock, City of Largo

FDEP Consent Order and EPA Region 4 MOM Programs Project CITY OF LARGO

Sanitary Sewer Service Improvement Plan Consent Order OGC File No. 03-0666 Progress Report 17 June 1, 2014 – December 1, 2014

Improvement Plan Milestones Schedule Update:

<u>Item/Task</u> <u>Schedule</u> <u>Status</u>

Plan submittal to FDEP and EPA	08/2006	Complete.
Capacity evaluation consultant selection	08/2006 — 04/2007	Complete.
MOM program document formation	08/2007 — 12/2008	Complete. Currently operating under MOM program framework.
Flow monitoring program	08/2007 – 12/2008	Complete.
Targeted rehabilitation program pilot	08/2007 — 12/2008	Complete.
Satellite storage and treatment feasibility study	08/2007 — 12/2009	Complete
WWRF capacity evaluation and expansion analysis	08/2007 — 3/2009	Complete
Capacity improvement alternatives analysis	08/2007 — 12/2009	Complete
Data management systems implementation	08/2007 — 12/2012	Complete
Concurrency management program revisions	12/01/08 — 04/2016	Currently on schedule.
Accelerated citywide inflow and infiltration reduction program.	12/2009 — 12/2013	Complete
Major capacity improvements final design and construction	12/2009 — 04/2016	Currently on schedule.
Disinfection byproduct mitigation final design and construction	02/2011 — 04/2016	Currently on schedule.
FDEP status report	12/01/2014	Not applicable.

Compliance with Bromo-dichloromethane Effluent Limit

On August 4, 2009, an amendment to the consent order with the Florida Department of Environmental Protection (FDEP) was executed that stipulated corrective actions be taken by July 31, 2012, to bring the City of Largo Wastewater Reclamation Facility's effluent into compliance with the limit for Bromo-dichloromethane. This date coincided with the term of the Facility operating permit and was set by the FDEP and agreed to by the City with limited information as to the scale of Facility improvements that would be required to achieve compliance. Upon execution of the amendment the City continued ongoing efforts to return the facility to compliance with the Bromo-dichloromethane effluent limit, and has made responsible progress towards meeting this objective.

In December of 2009 the City completed an extensive Facility engineering study, which recommended full scale replacement of the disinfection system as the most viable option to return the facility to long term compliance with the Bromo-dichloromethane effluent limit. In September 2012 a second amendment to the consent order was executed which extended the compliance date to May 1, 2016.

Progress Update:

The City has completed preliminary engineering and initiated final design for full scale replacement of the Facility's disinfection system. Over the past six months the following project activities were performed:

- Completed 100% Design Phase, including design plans and technical specifications.
- Compiled contract documents in preparation for solicitation of competitive bids
- Received Final Environmental Resource Permit.

Anticipated work during the next reporting period:

- Finalize all permits
- Advertise for competitive bids.
- Award construction contract and contractor mobilization.

Reduction of Wastewater Overflows:

The City of Largo has adopted a Sanitary Sewer Service Improvement Plan (Plan), which complies with the Consent Order between the City of Largo and the Florida Department of Environmental Protection (FDEP), and the United States Environmental Protection Agency (EPA) Management, Operation, and Maintenance Programs Project (MOM Project). The primary objectives of the Plan include:

- Pro-actively make sanitary sewer system improvements, resulting in the prevention of system failures and overflows;
- Meet current and future anticipated regulatory requirements;
- Provide sewer capacity in a timely fashion to accommodate system expansion and redevelopment;
- Maintain level of service standards that are desired and acceptable to the community.

The City of Largo's MOM Project Self-Assessment and Sanitary Sewer Service Improvement Plan were submitted to the FDEP and EPA in August, 2006. In October, 2006, the FDEP formally accepted the Self-Assessment and approved the Plan. The EPA issued the City of Largo a letter of violation of the Clean Water Act due to the overflows identified in the self-assessment report. The EPA letter

indicated that no further enforcement action would be taken at that time, and that the agency would review the City's progress in Plan implementation in the future.

In February 2011, the EPA issued a letter to the City indicating that the agency had completed its evaluation of the City's Consent Order with FDEP and the City's semi-annual improvement plan progress reports. The letter indicated that EPA has determined that the City's inclusion in the EPA MOM project was complete and that the City shall continue its MOM Program administration and ongoing Consent Order Compliance initiatives.

The City's Plan identifies that the City of Largo will make improvements to current sanitary sewer management systems, as well as physical improvements to the major collection and treatment systems. For the purposes of assigning work to consultants, the City of Largo has divided implementation of the Plan into three major work tasks: Management Systems Improvements, Capacity Improvements Analyses and Capacity Expansion Design and Construction. Capacity Expansion Final Design and Construction will consist of multiple capital improvement projects, for which the City of Largo will seek engineering services on a project by project basis following completion of the Capacity Improvements Analysis.

Management Systems Improvements Progress Update:

In 2012 the City made substantial progress in planned improvements to management systems through selection and procurement of a Computerized Work and Asset Management System (WAMS). The City's implementation team (WAMS Core Team) completed system configuration, final end user training and system roll-out. City Environmental Services staff have been using the WAMS to generate work orders, and track asset conditions since the first quarter of 2012.

Over the reporting period City staff continued using the calibrated InfoWorks computer model of the sanitary sewer collection system for concurrency evaluation. Additionally in 2012, the City completed the administrative process for a text amendment to the City of Largo Comprehensive Plan to include adoption of a new Level-of-Service (LOS) standard for the sanitary sewer system to become effective in 2016 following implementation of the revised sanitary sewer concurrency management program. The amendment also includes strategies for administering the revised sanitary sewer LOS standards and managing system capacity over time. The following table outlines the major program tasks and specific activities identified to implement the proposed changes to the City of Largo Sanitary Sewer Concurrency Management Program. The implementation plan resulted from the proposed Concurrency Program Documentation developed in 2008. The table provides a tentative schedule and status for each implementation activity.

<u>Task</u>	Schedule	<u>Activities</u>	<u>Status</u>
	2009	Add staff changes to FY 2010 Budget for new concurrency program job roles.	Complete
	2009-2010	Upgrade a Design Engineer to a Senior Design Engineer in the Engineering Division to add the proposed concurrency coordinator job functions.	Complete
Staffing	2009-2010	Hire an Engineering Technician and Design Engineer to fulfill the Mapping Specialist and Concurrency Analyst job functions.	Complete
	2009-2010	Train new staff on interim concurrency review procedures	Complete
	2015-2016	Retrain staff on final concurrency process changes prior to 2016 effective date	Start Pending
	2007-2008	Update and expand the City's Sanitary Sewer Collection System Computer Model	Complete
	2008-2009	Calibrate the Collection System Computer Model to be used for capacity evaluation	Complete
	2009-2010	Configure model on City computer network	Complete
	2009-2010	Initial staff training on use of model	Complete
	2010-2013	Develop standard operating procedure and train staff on use of model to analyze concurrency applications and track capacity commitments over time	Complete
	2009-2010	Develop Geodatabase for Sanitary Sewer Infrastructure	Complete
Information Management and Analysis	2010-2015	Develop Geodatabase for concurrency information related to rain events, and Sanitary Sewer Overflows	Ongoing
Software	2011-2015	Develop GIS features for concurrency information	Ongoing
Tools	2012-2015	Develop GIS routines for concurrency evaluation	Start Pending
	2014-2015	Develop standard operating procedure and train staff on use of GIS to analyze concurrency applications	Start Pending
	2009-2010	Evaluate use of existing permitting software for sewer permitting and concurrency process and information management	Complete
	2010-2013	Budget proposal for replacement of the permitting and concurrency software	Complete
	2013-2016	Procure and configure new permitting and concurrency software	Ongoing
Policy and Procedure	2010-2011	Develop Proposed Revisions to Comprehensive Plan to incorporate level of service for the CMP.	Complete

	2011	Planning Board Approval of proposed Comprehensive Plan Amendments.	Complete
Changes Stakeholder Outreach	2011	Commission Approval of proposed Comprehensive Plan Amendments.	Complete
	2011	Department of Community Affairs approval of proposed Comprehensive Plan Amendments.	Complete
Changes	2012	Commission Approval of Final Comprehensive Plan Amendments.	Complete
	2015-2016	Revision to Sanitary Sewer Policy and Code of Ordinances.	Start Pending
	2015-2016	Revision to Comprehensive Development Code.	Start Pending
	2014-2015	Revise concurrency and sewer applications and form letters.	Start Pending
	2015	Develop contact lists for stakeholders.	Start Pending
	2015	Develop program fact sheets, overviews, and public information presentation materials.	Start Pending
	2015	Hold open houses and stakeholder forums.	Start Pending
	2015	Meet with adjacent municipalities.	Start Pending
	2015	Develop checklists and other guidance documents for City staff.	Start Pending
	2016	Hold internal training sessions for City staff; review roles and responsibilities.	Start Pending
	2016	Develop applications and guidance documents for applicants to be posted to the City's website.	Start Pending
	2016	Hold public information meetings.	Start Pending
	2016	Post application, application instructions, other applicant guidance documents, and map of potentially capacity limited areas to City's website. Include information on effective date of the CMP.	Start Pending
	2016	Send reminder email to contacts list of effective date of CMP with link to guidance documents.	Start Pending

Capacity Expansion Final Design and Construction Progress Update:

In December of 2009 the City's consultant team completed the capacity analysis of the collection system. The results identified construction of a wet weather manifolded force main as the recommended project to mitigate historical SSO's within the collection system and recommended additional targeted I&I reduction projects to mitigate future potential overflows in outlying areas of the collection system. The City's selected consultant, Brown & Caldwell, is actively working on the Wet Weather Monitoring and Pumping System Project. Contractor bid award has been approved by the City Commission and construction is expected to begin early 2015. During the reporting period the following activities were performed:

- Completed Easement Agreements
- Completed Competitive Bid Solicitation
- Completed Execution of FDEP State Revolving Fund Loan Agreement
- Completed Construction Contract Award
- Completed Execution of Contract

Capacity Expansion Final Design and Construction Anticipated Work for Next Reporting Period:

- Issue Notice to Proceed
- Contractor Mobilization

<u>Update on Highlighted Projects and Programs to Improve SSO Mitigation:</u>

Contract Collection System Repair and Rehabilitation

The City of Largo Engineering Services Division provides support for certain emergency sewer repairs, and annual rehabilitation to sewer manholes and pipes through outside contractors. These services are facilitated through three annual purchase agreements (APA) for emergency repairs and annual rehabilitation to the gravity collection system, force mains and reclaimed water system. Sanitary sewer pipes and manholes are sealed and lined using various products in order to eliminate infiltration and restore structural integrity. One APA is issued to two contractors to provide emergency repair services and is used on an as-needed basis. A second APA is for manhole repair service and sealing with the intent to use the entire APA amount annually. The third APA is for pipe lining on an annual basis with the intent to use the entire APA amount. Each APA is authorized for a one-year period with the option of up to two one-year renewals, based on competitiveness of pricing and contractors' previous performance. Collections Division staff identify sewer pipes and manholes in need of repair through regular inspections. On a periodic basis a list of pipe segments and manholes are provided to Engineering Services for rehabilitation using the APA.

During the reporting period, APA contractors Rehabilitated 29 manholes, lined 11,683 feet of sewer pipes, lined 11 laterals and 15 open cut point repairs.

Sanitary Sewer Interceptor Cleaning

This project consists of by-pass pumping, cleaning, and video inspection of approximately 22 linear miles of main interceptor sewer pipe. Over time sediment accumulates at the bottom of the sewer pipes, which reduces the flow capacity. Cleaning of the sewer lines is critical to maintain hydraulic line capacity and prevent sanitary sewer overflows. In FY 2008, the City of Largo established a program to clean the entire interceptor system every eight years. The system was divided into four segments

with one segment being cleaned every other fiscal year. The City of Largo budgeted \$640,000 in FY 2010 and \$450,000 in FY 2011 for the next two phases of Interceptor Line Cleaning. The 2010 project was awarded for construction in May 2010 and was completed in January, 2011. The project resulted in the removal of 155 tons of debris and sediment from the interceptor system, and the CCTV inspection of 5.32 miles of pipe. In January of 2011, the City approved a change order to the 2010 contract, which added \$425,000 from the FY 2011 budget, for continued interceptor cleaning. During 2011 the City completed cleaning and video inspection of 6.91 miles of pipe, resulting in removal of an additional 187 tons of debris and sediment. In FY 2012, the City completed the cleaning and video inspection of an additional 6.75 miles of pipe, resulting in removal of an additional 178 tons of debris and sediment. During the December 2012 reporting period the City completed the final portion of the cleaning under the contract, and removed an additional 89 tons of sediment. During the June, 2013 reporting period a new contract for interceptor cleaning was advertised for bid and awarded. During the December, 2013 reporting period, the City cleaned and CCTV inspected 11.5 miles of pipe, and has removed 55 tones of debris. During the current reporting period, the City has cleaned and CCTV inspected 1.53 miles of pipe.

Environmental Control Program

The City of Largo Environmental Control Program continues to regulate privately owned collection and transmission systems (POCTS) that connect to the City of Largo's municipal system. This program actively pursues sanitary sewer overflows, inflow and infiltration problems within privately owned systems. Additionally, the Commercial User Program ensures solids and grease are not discharged from commercial and institutional facilities, creating blockages in the sanitary sewer system. Fourteen sanitary sewer overflows occurred during this evaluation period eight of which were on private systems. A summary of notable program activities is provided below for the time period of June 2014 – November 2014.

Privately-owned Collection and Transmission System Program Compliance Order Updates

Environmental Compliance Officers conducts studies of lift station run times to evaluate the impact of rain events had on the wastewater flow. Those communities with elevated flows during wet weather events were required to conduct video inspections to identify sources of inflow and infiltration and remediate the system as necessary. The section below identifies the status of actions taken to mitigate inflow and infiltration found in these systems:

- Lincolnshire Mobile Home Park
 1071 Donegan Road
 Largo, Florida 33771
- Compliance Order issued to address line breaks, misaligned joints, severe root growth and blockages and below grade manholes.
- Video Inspection of entire privately-owned collection system conducted in February 2009.
- Phase I (severe issues addressed).
- Phase II (Less severe issues pending).
- Phase II started in 2011.
- Phase II currently still in process (2012).
- Near completion, final Compliance Order evaluation needed (rain-trays may need to be installed), 2013.
- Final sewer lines repaired or lined. Cleaned 14,333 feet of line (December 2013). Raised 27

manholes and rehabbed one manhole (January 2014). In process of final Compliance Order evaluation. Anticipate closing Compliance Order upon completion of final evaluation by City staff.

- Final evaluation process.
- Down Yonder Mobile Home Park
 7001 142nd Avenue North
 Largo, Florida 33771
- Compliance Order issued to address line breaks, misaligned joints, severe root growth and blockages and below grade manholes.
- 55 rain trays installed
- 4 manholes raised to grade
- Video Inspection entire privately-owned collection system conducted in January 2010.
- Repairs to private main and laterals in process.
- · Replaced several joint lines with Ranch MHP.
- MHP is currently conducting Inflow and Infiltration study to evaluate if additional improvements are necessary. Study will be completed by October 2011 and submitted to the City for review.
- MHP completed the inflow and infiltration study and submitted it to the City for a review.
- The study reviewed by the City's Engineering division.
- Response letter to the MHP's inflow and infiltration study reviewed by the City's attorney. City's finding is that the study did not prove that inflow and infiltration issues have been resolved by the rehabilitation work performed by the property management so far.
- Coordinating to determine City's options for demonstrating non-compliance with inflow and infiltration standards.
- Preparing standardized I&I evaluation methodology.
- 3) Twin Palms Mobile Home Park 14300 66th Street North Clearwater, Florida 33764
- Compliance Order issued to address line breaks, misaligned joints, severe root growth and blockages and below grade manholes.
- Roots removed from manhole and ring resealed.
- Video inspected the entire privately-owned collection system in January 2010.
- Plan of Action submitted June 2, 2010.
- Phase I (severe issues addressed).
- Phase II (less severe issues) not yet scheduled.
- Conducted a second video inspection.
- Phase II videos provided to the City for a review.
- Phase II videos reviewed by the City staff (work included grouting, lining and sectional repair)
- Currently on schedule to meet the consent order requirements.
- On November 27, 2012, the City received a letter from Twin Palms MHP pertaining to the completion of its rehabilitation program. The City is waiting on the final documentation from the MHP to reclassified the Compliance Order issued as to be complete.
- Compliance Order requirements have been met.

- 4) Palm Hill Mobile Home Park 1800 Seminole Boulevard Largo, Florida 33770
- Compliance Order issued to address root growth and repair or replacement of privately-owned collection system.
- Video inspected privately-owned collection system in May 2009.
- Raised buried manholes to grade.
- City staff completed a review of CCTV videos. List of severe issues generated.
- Currently on hold. The City is reviewing POCTS portion of the Ordinance prior to demanding additional work on the system by the owner.
- Coordinating to determine City's options for demonstrating non-compliance with inflow and infiltration standards.
- Preparing standardized I&I evaluation methodology.
- 5) Fairway Village 1100 Belcher Road S Largo, Florida 33771
- Smoke tested by Environmental Services Department.
- Inflow repairs detected are being addressed in preparation for CCTV inspection.
- Fairway Village identified several problem areas under the Eagle Drive Road. The MHP
 management needs to conduct improvements on storm water and sanitary sewer before
 repaving the road. Currently, the management is waiting for contractors to send their bids in.
 The management expects that sewer portion of this project will take place during the 3rd or 4th
 week of July 2011.
- MHP's management is currently addressing issues under Eagle Drive Road. In the process of repairing a manhole that is found to be a significant source of I and I at the property.
- Rehabilitation work on the sanitary sewer lines under Eagle Drive Road has been completed (1,400 linear feet). Manhole that was a cause of significant source of I and I at the property during the reporting period June 2012 – November 2012 has been repaired by the property management and was inspected by the City's staff.
- 900 to 1000 feet of line replaced in 2014.
- Continual improvements identified as road construction is performed.
- 6) Mariners Cove Mobile Home Park 5796 Ulmerton Road Clearwater, Florida 33760
- Smoke tested by Environmental Services Department.
- Inflow repairs detected have been addressed.
- 7) Blue Horizon Mobile Home Park 5145 East Bay Drive Largo, Florida 33764
- Currently preparing to conduct Inflow and Infiltration evaluation to evaluate necessary improvements and provide for quantification of reduction efforts. Compliance Order will be issued as appropriate.

- 8) Brittany Bay Apartments 1201 Seminole Blvd. Largo, Florida 33770
- City inspection identified that lift-station maintenance is needed and buried manholes need to be uncovered, raised, and inspected annually to reduce I&I.
- Wet well sealed to prevent I&I.
- Compliance Order was issued, on September 23, 2014, to raise twelve buried manholes by March 28, 2015.
- Indian Rock Shopping Center
 12022 Indian Rocks Road
 Largo, Florida 33774
- City inspection identified older portions of the system substantially block and deteriorated.
- Compliance Order was issued, on September 11, 2014, to televise the system and submit a plan identifying corrective actions, by January 16, 2015. All rehabilitation or replacement to be completed by November 30, 2015.
- 10 Hope Church 7100 142nd Avenue N. Largo, Florida 33771
- City identified numerous I&I sites at lift-station and in collection system.
- Compliance Order was issued, on November 12, 2014, to submit a plan identifying corrective actions, by December 12, 2014. All repairs to be completed by November 30, 2015.

Privately-Owned Collection and Transmission System Activities

June 2014 – November 2014

				Septem-	Octo-	Novem-	YT
Event Type	June	July	August	ber	ber	ber	D
Annual POCTS Inspection	32	29	33	37	12	8	151
Complaint Response		1		1			2
Dye Test		1		1			2
High Level Alarm	4		2	4	1		11
Interceptor Inspection					1		1
Investigative	4	2				1	7
Other	2		1	1			4
Overflow	2		2				4
POCTS Inspection	3	8					11
Pre-Permit		1	1				2
Re-Inspection	18	22	37	31	15	3	126
Routine	4	1	1	2			8
Smoke Test		1					1
Grand Total	69	66	77	77	29	12	330



December 1, 2014

Mr. Steven Kelly, Environmental Manger Southwest District Director Florida Department of Environmental Protection 13051 N Telecom Parkway Temple Terrace, FL 33637-0926

Re: City of Largo Administrative Order Update Permit No. FL0026603

This update to Administrative Order (AO) No. AO-152-SW covers the period between November 1, 2013 and October 2014, and addresses the City of Largo's requirements to (1) begin a study of the necessary actions needed to meet its Total Nitrogen load allocation; and (2) to provide the Florida Department of Environmental Protection Southwest District with semi-annual reports outlining progress toward compliance within the time frames specified.

Table I below depicts the wastewater treatment facility's Nitrogen Load for the reporting period. It should be noted that by the end of October 2014, the City had discharged 556.5 million fewer gallons of treated effluent to surface waters over the same period last year.

Year	Month	Monthly Total Flow (million gals/mo)	Monthly Total Flow (million gals/mo) Monthly Average Total 1 Concentration (mg		Total Nitroger Load (tons)
2013	November	129.80	2.00		1.08
2013	December	114.00	2.20		1.05
2014	January	187.49	2.00		1.56
2014	February	207.94 2.30			1.99
2014	March	242.97	2.52		2.55
2014	April	173.55	2.20	2.20	
2014	May	81.07	2.60	2.60	
2014	June	55.22	2.80	2.80	
2014	July	39.30	2.34		0.38
2014	August	128.22	2.28	2.28	
2014	September	211.20	2.22	2.22	
2014	October	247.43	2.35		2.41
Nov 20	013 – Oct 2014	1,818.19	2.32	Annual avg.	17.34

RESCO, Pinellas County's waste-to-energy facility, plays a significant role in the City's ability to manage effluent disposal. Even at reduced consumption levels it is the City's largest user. As **Attachment I** shows, RESCO's overall demand was approximately 9 million gallons lower than for the same period last year. However, their recent draw has risen to previous high demand levels. RESCO's water treatment plant and pond system came on-line at the end of last year, and it was expected that this would be their primary source for cooling water. The lack of rain, however, has created a resurgence in demand. RESCO's future usage will fluctuate depending upon rainfall to the area, however, the City cannot rely upon their historical usage as a consistent means of treated effluent disposal.

With respect to managing future Nitrogen loading, the City is pursuing a number options to meet the requirements. Among the potential solutions are the following:

- A local interconnection between the City of Largo, City of Clearwater, and Pinellas County to maximize re-use in the area
- A regional interconnection to transport reclaimed water to a Pasco County reservoir
- Expansion of the reclaimed water system for commercial users
- Promotional programs aimed at increasing consumption by existing customers, and encouraging sign up for those with access who have opted out of the service
- Increasing the number of residential watering days

Possible local interconnection opportunity between the Largo, Clearwater and Pinellas County

Environmental Services staff have met quarterly with management staff from the City of Clearwater and Pinellas County to identify and develop the potential for local interconnection opportunities. The consulting firm of Jones Edmunds & Associates, Inc. was engaged to facilitate achieving the group's goals. Among these were establishing feasibility, defining project costs, coordinating and reaching consensus among the parties, identifying needed system improvements and operations, and assisting with developing the governance requirements.

Possible regional interconnection opportunity (Pipeline to Pasco) funded by RESTORE Act of 2012

Environmental Services staff and management representatives from Hillsborough and Pinellas county utilities met several times throughout the year to discuss the potential for a Regional Reclaimed Water Interconnect project. Pasco County Utilities has submitted an application to secure grant funding through the RESTORE Act of 2012, which would enable communities from the two counties to potentially move forward with the project. The goals of the project would be to minimize surface water discharge from water reclamation facilities, maximize the beneficial use of RCW, capture stormwater for augmenting RCW supplies, assist with alleviating flooding conditions, and improve the sustainability of the water supplies and wetlands. The initiation of this project was the catalyst for the examination of local options within Pinellas county.

Evaluating a reclaimed water system expansion for commercial users

The City of Largo's Engineering division is defining the scope of work necessary to conduct an evaluation of the reclaimed water system, and the potential for expansion to connect significant commercial users. This study was originally slated for the previous fiscal year (2014), however, implementing major Consent Order related construction projects and staff turnover created a delay in launching the effort.

Developing options for increasing reuse consumption by existing (and potential) commercial and residential customers

The Environmental Services department has begun a re-examination of its existing customer base to determine ways to encourage those who have access to reclaim water to sign up and use it. Targeted communication efforts to these eligible households and commercial entities highlighting the benefits of reuse are planned for the first quarter of 2015.

Increasing the number of residential watering days

The City launched a pilot program to increase the number of watering days available to residential customers. Beginning April 1, 2014 residential customers were allowed to irrigate 3 days per week (up from twice per week), and commercial customers continued with their 3 days per week allotment. Due to the proximity of the start of the rainy season to the change in watering days, the true effect of this addition cannot yet be fully evaluated. Once the trial period has elapsed and the data analyzed, Environmental Services staff will present the findings to the City of Largo's Commission and seek further direction.

In summary, the City of Largo is actively pursuing a number options that, singly or in some combination, will help meet the goals of AO-152-SW. If you have any questions regarding the information contained within this report, please contact me at (727) 518-3061.

Vivian L. Gleaves Environmental Manager City of Largo

	Attachment I	
	RESCO's Reclaimed Water Consump	tion
Year	Month	Consumption (in gallons)
2013	November	28,950,000
2013	December	28,950,000
2014	January	9,731,500
2014	February	9,731,500
2014	March	9,205,000
2014	April	9,205,000
2014	May	23,417,500
2014	June	23,417,500
2014	July	34,432,000
2014	August	34,432,000
2014	September	33,131,000
2014	October	33,131,000
	Total Nov. 2013 – Oct. 2014	277,734,000
	Total Nov. 2012 – Oct. 2013	286,651,000



CAPACITY MANAGEMENT, OPERATIONS, & MAINTENANCE PROGRAM UPDATE

PREPARED FOR:
Florida Department of
Environmental Protection

PREPARED BY:
City of Largo
Environmental Services
Department
5100 - 150th Avenue North
Clearwater, Florida 33760



Citizens Learn Water Treatment Basics

DECEMBER 2014

CMOM Highlights - December 2014

Over the past 11 years, the City of Largo's Environmental Services Department (ES) has used the Capacity Management, Operations, and Maintenance (CMOM) program framework to substantially improve the management and operations of its infrastructure and facilities towards the ultimate goal to significantly decrease sanitary sewer overflows. This semiannual CMOM update provides a snapshot of the organization's efforts to achieve this goal. A few key points from our most current internal review include the following:

Twenty Sanitary Sewer Overflows Reported In 2014

Through October 2014, the city reported twenty sanitary sewer overflows (SSOs) to the Florida Department of Environmental Protection. Five were capacity related, rather, they were attributed to contractor error and electrical problems, and failure of a reclaimed water line. Ten of the twenty SSOs were public and ten were private. In anticipation of the wet season, interceptor line cleaning at overflow prone areas was completed. As a result, the number of SSO incidents is now trending downwards and capacity related SSOs are down 14%.

Major Improvement Project Nearing Construction Phase

As a solution to SSOs created by inflow and infiltration from wet weather flows, the Department has confirmed selection of a construction contractor to complete the Wet Weather Monitoring and Pumping Station project. Garney Construction was selected out of three pre-qualified construction contractors who were offered the chance to bid on the project. The City has secured State Revolving Loan funds to help finance this project over the next two years. Construction on the Wet Weather project is expected to begin in the spring of 2015.

Customer Survey Confirms Department's Expectations

ES completed the department's first survey of its customer base to determine their satisfaction with offered services, and what the department could do differently. The process involved conducting stakeholder interviews and a focus group to identify areas of concern. Customers were notified of the survey through utility bill stuffers and allowed to access it on-line. The final survey was mailed to a random selection of 4,000 customers in January and February. Response from about 8% of those surveyed revealed that customers, as a whole, were satisfied with the services provided by the department, which coincides with ES' expectations.

Management Information System Update

Work and Asset Management System (WAMS) use by ES staff continues to improve. Additional licenses have been acquired and deployed, thus increasing access to information and fluency with managing the work processes and recording data. Furthermore, WAMS is being deployed in the field with mobile computers to improve the flow of information from the work activity into the system. ES staff is also beginning to embrace the concept of key performance indicators (KPIs) and how to interpret the data they collect. Finally, consultants working on the addition of reclaimed water assets to the Geographic Information System (GIS) and improvements to the data model for linear assets are gaining ground.

Safety Training Advances

Environmental Services re-established safety committee has been proactively introducing new training sessions and reinforcing past ones with department staff. The annual Safety Day event coordinated by the team was a big hit, offering vendor presentations, safety games, and training on disaster response and distracted driving.

CMOM Highlights – December 2014

Closing Statement

Enclosed in the following pages is a summary of updated progress for each program goal. Please note that due to reporting results some goals are measured in terms of the fiscal year (FY) or the calendar year (CY); however, designation is noted throughout the summary. In addition, please also note that all previous information is designated by black text and grey shaded areas, while all updated information is designated by red text.

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Pro	ogress Toward G	oal			
		Train Wastewater Collection Technicians, Lift Station	CAREER LADDER PROMOTIONS					
		Crews, Utilities Maintenance and TV/ Line Maintenance Crews through a five-year formal program on all aspects		rom Position		To Position	Number. of Employees FY 2014	
		of wastewater collection system maintenance	Wast	tewater Collection Trainee	Was	tewater Collection Technician I	1	
3.2.2	Training - Apprenticeship Program	Provide similar training progression for Reclaim Water Crews		New License	e/ Certific	cation	Number. of Employees FY 2014	
		Maintain correct level of licensed personnel at wastewater treatment facility to cover 24 hour shifts	١	Wastewater Collectio Wastewater Collectio Wastewater Collectio	n System	Operator "B"	1 1 2	
		Encourage increase in staff knowledge base through use of incentives which will result in enhanced skills, staff flexibility and redundancy		Re-initiate efforts to strument Technician		Career Ladder for Me 2015	chanics and In-	
		Keep employees and general public safe		ES Safety Record		No. of Lost Time	Incidents	
			Comply with wastewater industry requirements		FY2011		0	
		Internal goal to comply with Occupational Safety & Health		FY 2012 FY 2013		2		
3.3	Training -	Administration (OSHA) stan- dards		FY 2014		1		
	Safety Programs	Develop a matrix of ES' organizational training needs and a notification system to	 New committee charged with tracking staff training activity and re- certification needs Held a plant Safety Day with vendor presentations and trainings 				•	
		ensure that certifications do not lapse and that license educational requirements are	on distracted driving (April 2014) Restructured Safety Committee to include front line staff, in					
		met on a timely basis.	•	•	•	nprove input into the particular inching and Shoring tra	· ·	
		Train 1000/ of all relevant	 Will conduct First Aid/CPR training for new employees as neede MOT training occurred during March 2013 for entire Collections 					
3.3.3	Training - Traffic Safety			MOT refresher class		IPP staff participated neld as needed	as well	
			•	ES staff to be instru	ıctor certi	fied by FY2013		
Enviror	nmental Services – C	MOM Update – Dec 2014	Page	÷ 1	Red	Text = Updated Information	1	

Black text/Grey Shaded = Previous Information

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal
3.3.4	Training - Confined Space Entry	Train and certify all relevant ES staff on confined space entry every two years	 Conducted Confined Space Entry training for Collections, Reclaimed Water, and WWRF staff (October 2014) Will hold annual refresher course as required
3.3.5	Training - Lock Out - Tag Out (LOTO)	Train and certify all relevant ES staff on lock out / tag out procedures Refresh as required	ES staff to be instructor certified for Lock Out – Tag Out by FY 2013 Collection staff trained on Lock Out/ Tag Out procedures in March 2013 Lock Out Tag Out refresher class will be held as needed.
3.4.1	Information Management System - Weekly and Annual Reporting	Utilize WAMS to optimize treatment plant and collection system maintenance Extend bar coding to warehouse management capabilities Make mobile computing capabilities available to field staff Complete interface with City Financial Management System to automate purchase order process in WAMS Integrate Granite XP software with WAMS system to enable downloading of CCTV data Increase the number of WAMS licenses for organization to provide system access to more field personnel Capture institutional knowledge from evolving workforce Introduce reclaimed water assets into the GIS and WAMS systems	 Lock Out Tag Out refresher class will be held as needed Asset condition assessment conversations ongoing Exploring warehouse inventory bar coding to increase flexibility and efficiency Efforts will be focused on integrating Granite XP with WAMS by FY2014 Trained staff on Business Intelligence (BI) Publisher reports development in Nov 2012 and February 2013. Support staff reviewing reporting requirements with work units to develop custom reports Additional license purchases in FY 2014 budget to extend WAMS capacity to ES staff Private Collection System (POCTS) assets and Industrial Pretreatment clients will be entered into WAMS in order to track monitoring activity for these customer groups Purchased additional licenses needed to extend WAMS capacity to all ES staff and Engineering. Four laptops were deployed to field staff vehicles (October 2014) Finalizing tests of interface between financial management system and WAMS to automate purchase order processing Looking at additional reporting tools and/or staff to replace or support BI Publisher reporting Working with consultants to bring reclaimed water assets into WAMS Attained agreement with Granite XP provider that will allow access to CCTV data created by ES field crews. Need to purchase NAS device so data can be uploaded to a server

Red Text = Updated Information

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal					
			Work Type	20	14	20	13	2012
				6	20	5	77	463
		In participation with the	FY2014	Total	Percent	Total	Percent	Total
		Florida Benchmarking Consortium (FBC), develop	Work Orders	3,498	100%	3,831	100.0%	2,527
		consistent benchmark that	Reactive	620	18%	429	11.2%	184
		provide apples-to-apples comparisons among	Planned	1,457	41%	2,107	55.0%	825
	Key	wastewater utilities	Preventative	1,364	39%	1,266	33.0%	413
3.4.2	Performance Indicators (KPIs)	Refine KPIs to better reflect meaningful operational	Emergencies	57	2%	29	0.8%	12
		KPIs to department leadership team, highlighting problem areas, identifying root causes, and creating solutions	Working reporting Eighty p planned reactive GIS acceeding to the standard reactive	with supe g on KPIs ercent (80 or prevent ess is avail	rvisors tow %) of total tative work able to ES	work orders work only 1	ance data with super utine discussion and ders undertaken really 18% of the work ough WAMS and is ir assets are loader	
3.5.2	As-Built and Maps	Increase access to GIS maps throughout the City Provide updated maps of the collection system to crews electronically, with defects categorized by Pipeline Assessment and Certification Program (PACP) codes, and lining information Locate all valves on maps Migrate POCTS information to GIS system	through B 2013 Reclaime Awaiting tion syste Consulta into GIS Departm A more u the rest of Migration ing the E Consulta	ed water as consultant em nt selected ent staff par ser-friendl of RS staff nof POCTS ngineering nt work-to-	S. Complete seets have a vailability of to work of articipated y version, asset information of the properties of the pro	been loade y to make fin n reclaimed in Bentley Map Dention into nt's reorgan	being made d for first quant d into test G nal transition water asset Map training of the Viewer, is p of GIS is on hization	rter of C IS syster to produ data loa classes blanned
3.6.1	Gravity Line CCTV	Train and certify all Television Operator crew members on National Association of Sewer Service Companies Pipeline Assessment and Certification Program	Impleme program Efforts w FY2014 Granite >	is moving to the limited Pipe I	forward Lining, Insp sed on integ	pection, and	Evaluation to the Evaluation to the Evaluation to the Evaluation of the Evaluation o	raining WAMS t

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Environmental Services – CMOM Update – Dec 2014 Page 3

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	 Need to purchase NAS device so data can be uploaded to a server PACP training refresher courses to occur for staff over the next 						
		Extend training to other ES staff members							
		Integrate Granite XP software with WAMS system to enable downloading of CCTV data, thus making it available to other ES and Engineering staff							
			ES Crew	rs (FY)	2014	2013	2012	2011	2010
			LF Cle	aned	517,388	477,259	545,518	699,220	672,074
			LF Vacu	ıumed	335,306	293,625	349,127	432,883	416,229
			LF CCT	ΓV-ed	285,632	237,791	312,754	437,023	455,515
		Clean, Inspect and CCTV one							
		fifth (1/5) of the gravity sewer system on an annual basis,	Data includ	loc ropos	t cleaning	of known	"Hot Spo	ote"	
		(approximately 48 miles, or			Clean Drain				City-wide
		253,440 linear feet (LF)) Initiate residential grease awareness campaign in first quarter CY 2013	ve inç	nues and a	at targeted family prop n observed	Home Ow	ner Associ	ation (HOA	A) meet-
					ost 40% of or approxim				
			pro	oximately 2	uble spot" f 26.2 miles d debris build	of re-work	to minimiz		
					database of by private		r City own	ed sewer li	nes and
			va		list of corre with defect				
		Smoke test City's mainline	• Smoke testing completed in lift station basins 25,15, 16, 34, and 38						
3.6.2	Smoke Testing	system and private systems (through POCTS) to locate I/I for evaluation and		-	ke tested b Kay Creek.		•		~
		correction			ews making ex defects to			ble, and fo	rwarding
				noke testir 114)	ng and repa	irs comple	ted in Mar	iners Cove	(July
			• Pla	ans to smo	ke test Blu	e Horizon	Mobile Ho	me Park (F	Y15 Q2)
3.6.4	Pump Station Evaluation	Rehabilitate the wastewater treatment plant's South Influent Lift station in FY 2009	he inf • Th sta pro	adworks a fluent lift st ne consultination and in ojects com lled into He	CIP program t the WWR ation(s) ng engineer nterim oper pleted the oper eadworks P design was	F, and incling firm hi ation and revaluation, roject	red to eval maintenan , and recor	nstruction uate existi ce improve mmendatio	of the ng lift ement ns were
			_			Dad Tout - I	Undated Info		

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal	
			2012; engineering consu pletedBasis-of-design report to	budget approved and scheduled in FY ltant selection process was also combe completed in FY 2013
			isting system to construc which includes: new subr removal system, influent	e evolved from reconstruction of the ex- tion of new centralized headworks, mersible pump stations, bar screens, grit flow meters, flow equalization and sepa- flows, to replace the North and South lift
				preliminary data collection and sam-
				omplete. Maintaining the current sysar preventive and predictive mainteew project is completed
			Overall project remains or	
			 Engineering reviews or B are in process 	asis of Design reports submitted to date
			Negotiations for final des	ign effort are pending
			 Hazen & Sawyer approve for project 	ed by Commission as design engineers
			Project remains on sched	
			' '	ions received (July 2014)
			Currently working toward	s 90%
				ons associated with the largest 6, LS#15 and LS#20), and priority lift
		Expand treatment with a hydrogen sulfide reducing		gs on hold pending the outcome of the and Pumping Station Project
3.6.5	Hydrogen Sulfide	agent to all interceptors (contractor provided service)		n final stages of development, projected and may dictate additional feeding
				Weather Project (WWP) has been Y15 Q2, and its completion will impact al feeding locations
			 The WWP includes desig stations (LS #2, LS# 6, L 	n of bio-cubes at the affected lift S#15 and LS#20)
				commended evaluating other chemical tions to manholes to allow venting and
	Hydrogen	Monitor hydrogen sulfide gas at pump stations and selected manholes to determine		s were recommended in final design of that are in close proximity to Paradise
	Sulfide (cont)	locations with greatest potential for corrosion	This project is on hold pe Pumping Station project	ending the Wet Weather Monitoring and
			No change. Awaiting WV needs for H2S control	NP completion to determine additional
Enviror	nmental Services - C	CMOM Update – Dec 2014	Page 5	Red Text = Updated Information
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Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal									
		Add surface pH testing at various infrastructure facilities to determine corrosion hot spot. Establish corrosion control baseline in 2011 Evaluate approach for hydrogen sulfide odor control in eastern part of collection system	 Monito New Eswith Hy facilitie The profacilitie Odor lo on the Project Third p 	monitoring pe ring by ES sta S Collection N rdrogen Sulfic s to develop to pject to monitor s has been ca pggers will be eastern part of will begin in to arty engineer ring, and pres	aff slated to Manager to i le monitorin baseline or surface p anceled deployed to of the Collect CY 2015 ing firm con-	begin in 2 nd mplement pg at various H at various monitor hy tion system ducting a fl	oH testing a s infrastruct s infrastruct vdrogen suli n ow assessn	and assist ure ture fide levels				
3.6.6	Flow Monitoring	Use rain data in conjunction with flow meter and pump run time information to identify areas of Inflow and Infiltration			at select lifes Installed at Legistration Inst	ift Stations ow monitorions	# 4, ing using ar er purchase	n outside s,				
		Determine if outsourcing flow monitoring is feasible	 The Wet Weather Monitoring and Pumping Project will proving additional flow measuring devices ES will continue to use lift station SCADA system to monitor Pilot testing I/I evaluation for Blue Horizon Mobile Home Par 									
			ES Crews	FY 2014	FY 2013	FY 2012	FY 2011	EV 2010				
			Manholes Inspected	734	510	476	537	FY 2010 160				
		Rehabilitate interceptor manholes that are deemed to	manholes that are deemed to	manholes that are deemed to	manholes that are deemed to	·	Manholes Rehabilitated	19	0	-0-	36	54
		ongoing Engineering	Contractor	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010				
		inspection project, and using most cost effective option	Manholes Inspected	0	0	-0-	2	217				
3.7.2	Main line and Manhole Rehabilitation	Replace or rehabilitate all defective non interceptor	Manholes Rehabilitated	0	6	102	152	12				
Rehabilitation	manholes identified during ES crew inspections, to reduce inflow and infiltration Install steel rain guards on balance of system (as needed)		ws are now co ptors manhole ering departm aneous rehab ued 2014 pro bles on 49 th St ze hazards to contractor data	es nent is seeki o / repair wo ject to to ad . to ensure traffic	ing needed rk for comp just ring an that they ar	manhole a setitive bid	nd r					

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Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress T	oward Go	al			
			Contracto	or (FY)	2014	2013	2012	2011
		Initiate program to clean	LF Cleaned/ (CCTV-ed	0	0*	55,600	31,050
		interceptor sewers routinely with goal to keep pipe						
3.7.3	Interceptor Rehabilitation and Cleaning	diameter at maximum capacity. As interceptor lines are	assist in New inte	data conting developing terceptor clean after the er	future clean ning contrac	ing schedu et was issu	iles ied Septen	nber 2013
		cleaned, City's Engineering Division to develop sediment removal baseline in order to refine future cleaning	and inspSedimen	ected appro at debris rem s to be track	ximately 11. loval through	5 miles of n this run e	intercepto	r lines
		schedules		e interceptor ntractor data			d by end of	FY15 Q1
	Pump Station Rehabilitation / Wet Weather Monitoring and Pumping Station Project			Engineering station char			ie 150 th Av	re route wit
3.7.5 M		Implement project to update/reconstruct Lift stations numbered 12, 20, 2, 3, 10, 15 and 16, and install eight miles of force main pipe		ary design p				
			 Construction start planned for first quarter CY 2015 Outreach efforts to residents impacted by the change have beer 					
				ed and are b			ano onang	, navo 500
			Received State Revolving Loan lunds to help linance this project					
			 Contractor has been selected (Garney Construction) Construction projected to begin in the first quarter of CY 2015 					
		Develop and implement a		ency Manag nd approve			ve and bei	ig useu to
		Concurrency Management Program designed to ensure adequate collection system and water reclamation facility	Capacity Model to be re-calibrated upon completion of wet Weather Monitoring and Pumping Station project					
3.8	Capacity Assurance		Currently, the Environmental Control Manager and Engineering					
0.0	(Concurrency Management)	capacity, reduce SSOs, comply with regulations,	staff review proposed development / redevelopment prior to permitting to ensure that the collection system has the capacity					
	Management,	maintain long term growth and provide business process	 to accept the predicted wastewater flow The City is providing free pre-permit, pre-development review 					
		and tracking procedures	meetings	with develo	pers to prov	/ide mean	ingful com	ments prior
			Current a	applications acity Model t				ated using
3.9.1	SSO Summary	Continued reduction in the	SSO	2014	2013	2012	2011	2010
	550 Sammary	number of capacity related	Occurrence					
		SSOs and in the volume of raw sewage overflowing into surface waters	Total SSO Incidents	20	28	10	16	16
		Sariace waters	Capacity Related SSOs	5	11	1	3	1

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress	Toward Go	Progress Toward Goal				
			SSO Types						
			Public	10	25	9	10	9	
			Private	10	3	1	6	7	
			SSO Volumes						
			SSO Volume (gals)	824,357	3,270,938	784,305	585,155	101,090	
			Volume Collected & Returned (gals	2,750	34,953	96,300	109,850	27,125	
				sulting from the that are expo					
				r 25%) of the , down from t					
				e in number o years has nov ards.					
			0-7	ort Oveley velet			d to 2000	in ataly	
		Maintain low debt rate and adequate reserves	 Consent Order related borrowings adjusted to approximately \$34.4 million in 2015, and \$50.3 million in 2016 						
3.10.1	Financial Condition		CIP process and estimation of work timing will determine adjustments to planned borrowing program						
			• Resen	re levels conti	nue to be ac	lequate			
			Last rate increase in 2006						
			Rate study planned for FY 2015						
			 Anticipated 15% rate increase for FY 2016 & FY2019 to support Consent Order related construction and rehabilitation projects 						
3.10.2	Rates and		Rate study consultant selection process is being planned						
	Revenue	avoid sudden increases	Rate study consultant not yet chosen						
			• Planne	d rate study v			g is anticip	ated	
			No cha	inge in projec	ted rate incr	case tiiriiri			
			No cha	inge in projec	ted rate incr				
3.11.2	Adequate Equipment	Maintain adequate generator and pumping capacity to power pump stations and the	Added general	one (1) 1500 to the was	KW generat	or and one	nt to enhar		
3.11.2		· · ·	Added general and er	one (1) 1500 tor to the was	KW generat tewater trea er generatio	or and on- tment plan n capacity	nt to enhar		
	Equipment	and pumping capacity to power pump stations and the	Added general and er	one (1) 1500 tor to the was nergency pow	KW generat tewater trea er generatio	or and on- tment plan n capacity	nt to enhar		

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal					
3.11.3	Vehicle Maintenance and Replacement	Maintenance and replacement schedule for all vehicles. Replace when cost of control of cost o						
3.12.1	Customer Calls Customer Calls Continue to provide immediate response to emergency situations, including stoppages	Fiscal Year	2014	2013	2012	2011		
		•	Total Calls Recorded	620	577	549	517	
		Sewer Related	155	157	184	179		
		Record all customer calls, examine trends, initiate steps	Backups/Blockages/Jetting/Pests	75	86	80	91	
	examine trends, initiate steps to provide superior customer service and feedback.							
			Sinkholes	27	18	29	14	
			Sinkholes Odor	27 6	18 13	29 21	14 21	
		service and feedback. Undertake customer						
		service and feedback. Undertake customer satisfaction survey, which will include focus groups and	Odor	6	13	21	21	
		service and feedback. Undertake customer satisfaction survey, which will include focus groups and mail, web surveys of customer	Odor Locates*/Work Notice	6 33	13	21	21	
		service and feedback. Undertake customer satisfaction survey, which will include focus groups and	Odor Locates*/Work Notice Sewer Leaks /Breaks	6 33 3	13 8 25	21 29 15	21 20 22	
		service and feedback. Undertake customer satisfaction survey, which will include focus groups and mail, web surveys of customer base in first quarter of CY	Odor Locates*/Work Notice Sewer Leaks /Breaks Manholes Problems	6 33 3 11	13 8 25 6	21 29 15	21 20 22 11	
		service and feedback. Undertake customer satisfaction survey, which will include focus groups and mail, web surveys of customer base in first quarter of CY	Odor Locates*/Work Notice Sewer Leaks /Breaks Manholes Problems Reclaim Water Related New Requests for Reclaim Water	6 33 3 11 211	13 8 25 6 238	21 29 15 10 254	21 20 22 11 243	
		service and feedback. Undertake customer satisfaction survey, which will include focus groups and mail, web surveys of customer base in first quarter of CY	Odor Locates*/Work Notice Sewer Leaks /Breaks Manholes Problems Reclaim Water Related New Requests for Reclaim Water (RCW) Service	6 33 3 11 211 51	13 8 25 6 238 45	21 29 15 10 254 85	21 20 22 11 243 73	
		service and feedback. Undertake customer satisfaction survey, which will include focus groups and mail, web surveys of customer base in first quarter of CY	Odor Locates*/Work Notice Sewer Leaks /Breaks Manholes Problems Reclaim Water Related New Requests for Reclaim Water (RCW) Service Reclaim Water Leak/ Break	6 33 3 11 211 51	13 8 25 6 238 45	21 29 15 10 254 85	21 20 22 11 243 73	

• Customer satisfaction survey consultant chosen. Survey

Reclaimed Water Variance

General

Billing

Other**

Inquiries

Workmanship Complaints

^{*}Locate requests not placed through state One Call system

^{**}Other category reflects calls received for information such as: sod replacement, and other miscellaneous issues that may not fall under the Environmental Services Department's jurisdiction

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal
		Revise IPP ordinance to	completion anticipated by third quarter CY 2013 Completed stakeholder interviews and focus group in support of Customer Satisfaction Survey development Completing survey design; plan for issuance is in first quarter of CY 2014 Customer calls are slightly up from the previous year due to increase in Customer Inquires category. The upward shift in Inquiries reflects the department's growing outreach efforts, and better categorization of call type in WAMS Overall sewer related calls are down, including odor complaints and sinkholes reports Reclaimed water system leaks calls continue to increase A study of the RCW system in FY 2014 will assess system condition and expansion potential Consultant surveyed 4,000 customers by mail, and ES made the survey available on the city's website. Mailed response rate was about 8%. On the whole, customers are pleased with ES performance and effectiveness. Key concerns were cost, reclaimed water availability, and sewer line maintenance Results from survey have been incorporated as part of the 2015-2019 Departmental Strategic Plan
3.12.2	Industrial Pretreatment Program (IPP)	Florida state requirements Revise enforcement response documents to notify participants of corrective actions Conduct local limit evaluation per Florida Administrative Code 62-625 to ensure that current local limits are adequate to protect Largo's sanitary sewer system, wastewater treatment facility, and plant effluent discharged	Legal comments received. Currently revising Enforcement Response Plan (ERP) for code enforcement staff to improve legal authority to implement Pretreatment program, and to provide adequate enforcement and understanding the process City Legal department is reviewing revised ordinance Revised Local Limits have been approved and implemented through issuance of revised user permits Industrial Pretreatment Ordinance and enforcement response plan revisions have been submitted and approved by FDEP. Approval by the City Commission will be next step in process
3.13.2	Public Information and Education	to Tampa Bay Provide advanced notice to customers prior to major construction, rehabilitation activity or service interruptions Provide plant tours to general public schools universities and professional organizations	 Initiated "Clean Drain Campaign" to increase customer awareness about residential grease management Participated in Channel 10 (WTSP) segment informing local areas residents on how (and why) to keep drains free from Fats, Oils, and Grease (FOG). Participated in the following city sponsored or industry sponsored events: 2014 Citizen's Academy Spooktacular, a citywide event attracting more than 30,000 visitors

Program Number	Program Management Category /Subcategory	Program Goal	Progress Toward Goal		
		Participate in Citizen's Academy to inform interested citizens in various aspects of city government Provide education to pretreatment customers, commercial users reclaimed water users and privately owned system owners on an as-needed basis	Select HOA m prone areas	ommerce business fareetings at multifamily tainability Group small groups to advise potential responsible performed provide additional informance the site visitor ally	chousing in grease eclaimed water g customers of formation, education 's experience and
3.13.3	POCTS Ordinance	Annually inspect the 450 private collection systems that deliver flow into the Largo system and address issues of compliance with standards	 Ordinance revision to c identifying Inflow and Inflow	filtration is under cons are in process npliance rate for the 4 dions will be addressed	sideration. 450 participants in d after IPP
3.14.1	SSO Water Quality Monitoring	Train all ES field staff responsible for sampling during an SSO once per year	 Conducted staff training response – ongoing Four staff members retricted. Conducted SSO training Control, Reclaimed and Trained Environmental of sampling during an SSO This program is ongoing 	ained in SSO sampling for all ES field staff; Collections Control staff always o	ng Environmental
3.14.2	Laboratory Capabilities	Maintain laboratory capability and certification to perform all	Analyte	Certification Type	Status
	Capabilities	necessary water quality test	Ammonia as N	NELAP*	Certified
		pertinent to the plant	Carbonaceous BOD	NELAP	Certified
			Fecal Coliforms	NELAP	Certified
			Kjeldahl Nitrogen, Total	NELAP	Certified
			Phosphorus, Total	NELAP	Certified
			Nitrate -nitrite	NELAP	Certified
			Residue-non filterable (TSS)	NELAP	Certified
			* NELAP= National Environme	ntal Laboratory Accre	editation Program

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal
3.15.1	Disaster Plan	Annually review and upgrade plan as needed w/ steps to be taken by ES staff in the event of an emergency Establish new goal to	 Passed November 2012 Lab re-audit Added a new autosampler Will purchase additional portable autos ampler and stationary colorimeter in second quarter of FY 2013 Environmental Control Supervisor update of lab manuals, and SOPs is ongoing Purchased new colorimeter Continuing to purchase efficiency improving equipment for the Lab Passed November 2014 Lab re-audit Developing a Hurricane Event response plan, with appropriate work orders set up in WAMS system Disaster Plan review with all ES staff scheduled for May 2013 Plan to send additional staff to Hazwopper training Disaster Management Group collaborating with all City departments to develop a more comprehensive, detailed plan
	routinely practi response plan	routinely practice emergency response plan on a quarterly basis	that will support responding to a simulated disaster ES to provide input from all programs in Spring 2015 to update current disaster plan
3.15.	Emergency Equipment	Along with the Fire Dept, develop a Chemical Emergency Response Plan in 2009	 Chemical leak drill was conducted in April 2013 with Hazmat units from surrounding communities Received new trench box for trenching and shoring use. Trained Collection line repair staff on proper use Competent Person Trenching and Shoring training planned for second quarter CY2013 Competent Person Trenching and Shoring training was held This program is ongoing 5-year Risk Management Plan /Process Safety Management update due by November 2014. In process of acquiring vendor for audit November 2014 audit completed
			 Risk management plan updated and sent to EPA Will update protocol manuals by end of FY15 Q1
4.2.2	Fats, Oil, and Grease (FOG)	Inspect 365 Commercial Users on annual basis to ensure proper permitting, installation and maintenance of grease & lint interceptors.	 ES Compliance staff meet with property managers during annual review to educate on potential hazards, and to supply up-to-date information on what could compromise the collection system. Purchased <i>Linko Tracker</i> software to confirm that haulers are properly disposing of grease collected from permitted facilities. Ordinance changes, which provide additional choices for grease removal devices and longer timelines to comply with replacement.
		Update ES website with FOG information and relevant user documents Develop brochure for new	removal devices and longer timelines to comply with replacement of failed devices, have been completed Filled new Environmental Control Supervisor position Changes to the website have been completed, including providing access to relevant user documents Letter was sent to affected commercial users of need to upgrade
Enviror	nmental Services – C	SMOM Update – Dec 2014	Page 12 Red Text = Updated Information

Black text/Grey Shaded = Previous Information

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Towar	d Goal					
		commercial users to aid in sizing the grease traps	grease traps to ordinance cha Environmental on adapting to Developed spi stand how to so the city's w	nge Control division this change readsheet to size their greate ebsite	sion respondi help new cor ase intercept	ing to custom mmercial use or. Published	ner inquiries		
			Redesigning dFOG specific p	position crea	ted and curre	ently filled			
4.2.3	POCTS	Reduce unauthorized wastewater discharges to the environment and to reduce I & I into the City's sanitary sewer systems		See section 3.13.3					
			This program is ongoing						
			 I & I study development meetings have begun with an examination of basic POCTS data to better define the focus Pilot test with Blue Horizons Motor Home Park 						
4.3	New Connection Tap In Program	Consistently review and compare utility bills to properly rate accounts; correct as needed	 Rate revisions have not occurred in three years. Possible rate changes in FY 2012 after a review of expense revenues. Program is in place and ongoing 				xpenses and		
4.4.2	Private System Flows	Reduce I & I within the private collection systems through monthly tracking and review of self monitoring data.	 Maintain and r Follow up sust Require custor additional revie Program is in r Monitored rear Moved lift stati Created busing be addressed 	tained spikes mer to CCTV ew. place and on dings have hoor pump hore.	s in run time v ' system if sn going elped to valic urs to EC Tra	with smoke te noke testing v date instance ack System	esting. warrants s of I & I.		
4.5	Line Locations	Prevent or mitigate damage to	Year (FY)	2014	2013	2012	2011		
	for Third Parties utilities and customer provisions made to the	utilities and loss of service to customer through timely provisions of utility locations made to the Sunshine State One Call System.	Acquired new improve accurutilities New GPS equivalent software, and	acy of locatir	ng undergrou	nd and above Bentley GIS	e ground mapping		

Program Number	Program Management Category /Subcategory	Program Goal	Progress Toward Goal
			maps
			 New development activity and major roadway projects (Ulmerton and I 19) have increased need for department supplied locates Trimble GPS training currently being held
4.6	Plant and Biosolids Operations	Continue maintenance of water quality and bio-solids quality within operating permit limits Complete installation of programmable logic controllers (PLCs) in WWRF and Biosolids to improve reliability and process control Continue to replace equipment that has reached the end of its useful life in the Biosolids facility Explore alternate sources of nutrient uptake to reduce nitrogen load and to comply with Consent Order mandate.	 Per Acetic Acid (PAA) report given to Florida Department of Environmental Protection office for review. and evaluation, and the disinfection system has been determined to be permittable Consultant completed Preliminary Design Report and is proceeding with 60% design. Replacing deteriorated Venturi scrubbers in Biosolids operations PLC replacement goal for FY 2013 includes denite filters, methanol feed, south influent lift station, chlorine handling area, and Starkey Road reclaimed water storage tank PLC replacement for south influent lift station, and Starkey Road reclaimed water storage tank are complete Evaluating dual cyclones for replacement of removal pending outcome of Venturi scrubbers adequacy PLC replacement for methanol feed, chlorine handling area and Biosolids are complete PAA 90% engineering drawing are complete PAA 90% engineering drawing are complete Received draft permit for new disinfection improvement process (PAA) from FDEP Review of 100% plans and specifications for PAA project have begun Bidding of project anticipated for FY15 Q2
5.1.1	Pump Station Inspect / Maintain	Maintain weekly inspection of the 52 Lift Stations Inspect the two Master Lift Stations three times per week	 Program maintenance schedule is in place and on-going SCADA monitoring in addition to physical inspection Initiating WAMS tracking of PM program for Lift stations Program is in place, ongoing and tracked in WAMS Have begun PM maintenance program for lift station; data being maintained in WAMS. Also self performing minor renovations and rehabilitation Program is in place and ongoing Annual oil changes and lift station preventive maintenance are
5.1.2	Pump Station & Force Main Equip	Ensure that all Lift Station and Force Main valves are operable during emergencies or as needed	 In process of creating lift station preventative maintenance SOPs Maintain program to exercise Lift Station valves every six months General maintenance is ongoing Initiating WAMS tracking to ensure consistent exercising of valves, and maintenance of operational and redundancy capabilities This is part of preventive maintenance program for lift stations ARV program is in process of being put into place Program is in place, ongoing and tracked in WAMS
Enviror	nmental Services – C	MOM Update – Dec 2014	Page 14 Red Text = Updated Information Black text/Grey Shaded = Previous Information

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal						
				FY2014	FY2013	FY2012	FY2011	FY2010	
		Reduce root intrusion by lining	Root Cuts	10	21	59	69	49	
5.2.3 Root Control and FOG		are rel City lir Initiatii root re	ated to prives meet g WAMS tated block	rate laterals racking to ages for fu	s, and tie-ir	ns where the areas of mation	root intrusion le private and lost frequent		
524	Rehabilitate or replace all	• See 3.	7.2						
5.2.4	Manholes	manholes based upon ongoing assessment	• Progra	m is in pla	ce				
5.2.5	Maintenance of Right of Way/Street Paving	Clean and televise gravity lines in backyard easements as part of gravity cleaning cycle Review proposed re-paving and road widening projects to ensure that manholes are raised	capacity Construction for Department of Transportation (DOT) project currently under design phase Program is in place and on going				determine e to increase OT) project		
		Relocate force main in Florida	Multiple projects are ongoing and being coordinated by FDOT						
		Department Of Transportation (FDOT) rights- of- ways due to roadway improvements							
5.3	Plant & Bio-	Consistently perform			Plant Rela	ted SSOs			
	solids Preventative	necessary plant maintenance		FY2010)		0		
	Maintenance	to ensure zero SSOs caused by plant failure		FY 2011	ſ		0		
				FY 2012	2		0		
				FY 2013	3		0		
				FY 2014	1		0		

Program Numbe <i>r</i>	Program Management Category /Subcategory	Program Goal	Progress Toward Goal
			 Benchmark PMs being established in WAMS for the wastewater plant and Biosolids to automatically generate scheduled, preventive maintenance work orders Benchmark PMs have been established Zero plant related SSOs in 2013
			 Zero plant related SSOs in 2014 Air permit for Biosolids process has been updated for next five year period through 2019